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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,742	02/19/2002	David Neil Slatter	30004064-2	4921

7590 08/09/2005  
HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER
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YE, LIN

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/078,742

Applicant(s)

SLATTER ET AL.

Examiner

Lin Ye

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 10-14 and 18-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-14 and 18-22 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1-8, 10-14 and 20-22 filed on 6/9/05 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments filed 6/9/05 have been fully considered but they are not persuasive as to claims 18 and 19.

For claim 18, the applicant argues that the Kweon reference (U.S. Patent 6,667,771) fails to disclose, teach, or suggest at least the feature “in which the front and rear portions are operable to communicate electrically with one another, and are physically connected to one another, in which the front and rear portions are electrically connected by means of an electrically conduction connection pin (See applicant’s amendment page 14).

The examiner disagrees. The Kweon reference discloses in Figures 1-5, all elements outside of wearer’s pocket **are consider as the front potion** of a wearable wireless image transmission system, such as the **RF transmission device 14, a clip 25, a body has a trough hole 27** for lens and image **sensor 4** that mounted on a **partial upper portion 23**. All elements outside of user’s pocket **are considered as the rear portion** of a wearable wireless image transmission system, such as **a partial of camera upper portion 23, lower portion 21** and a **control circuit 6** that built in a **camera circuit 50**; and at least part of camera circuit 50, upper portion 23 and low portion 21 included **inside of the wearer’s pocket of a shirt**. The lower end of the camera circuit 50 has electrically conducting pins 53 as shown in

Figure 3 to connect with transmission device 14 via cable 43; and each of the electrically conducting pins 53 with each conducting line of cable 43 are considered as “electrically conducting connection pin” as claimed, see Col. 4, lines 3-5. For this reason, the Kweon reference discloses the feature “in which the front and rear portions are operable to communicate electrically with one another, and are physically connected to one another, in which the front and rear portions are electrically connected by means of an electrically conduction connection pin”.

For claim 19, the applicant argues that the Kweon reference (U.S. Patent 6,667,771) fails to disclose, teach, or suggest at least the feature “ wherein the front portion includes transmission and reception section sections and is adapted to be worn outside a wearer’s clothing,” since camera circuitry 50 with image sensor 4 is contained in a middle portion of the ball-point pen structure that is worn inside a wearer’s clothing.

The examiner disagrees. The Kweon reference clearly disclose in Figure 4, the lens 27 is adapted to be worn outside a wearer’s pocket in order for forming a image of the subject, also the image sensor 4 has to be horizontally parallel with lens 27 in order form converting the images into respective image signal. For this reason, the lens 27 and image sensor 4 are considered as reception section is adapted to be worn outside a wearer’s clothing.

### ***Claim Objections***

3. Claim 13 objected to because of the following informalities:

For claim 13, please change misspelling “jewellery” to -- jewelry --.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 18-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Kweon U.S. Patent 6,667,771.

Referring to claim 18, the Kweon reference discloses in Figures 1-5, a wearable electromagnetic (EM) radiation transmitter/receiver (e.g., a wearable wireless image transmission system having a small-sized camera 4 and radio frequency transmission device 14, see Col. 3, lines 30-37) comprises a front portion and a rear portion, wherein the front portion includes a transmission and reception section and is adapted to be worn outside a wearer's clothing (e.g., the RF transmission device 14, a clip 25, a body has a trough hole 27 for lens and image sensor 4 that mounted on the upper portion 23 are consider as the front portion, see Col.3, lines 45-50; those elements are worn outside a wearer's clothing as shown in Figure 5. It should be noted the reference number of "114" in Figure 5 actually means the RF transmission device 14, see Col. 4, lines 6-12), and wherein the rear portion includes a control section and is adapted to be worn inside at least part of the wearer's clothing (e.g., a partial of camera upper portion 23, lower portion 21 and a control circuit 6 that built in a

camera circuit 50 are considered as the rear portion; and at least part of camera circuit 50 and upper portion 23 included inside of the wearer's pocket of a shirt as shown in Figures 4-5, see Col. 3, lines 31-33, lines 64-67 and Col. 4, lines 8-10), in which the front and rear portions are operable to communicate electrically with one another, and are physically connected to one another, in which the front and rear portions are electrically connected by means of an electrically conducting connection pin (e.g., the lower end of the camera circuit 50 has electrically conducting pins 53 as shown in Figure 3 to connect with transmission device 14 via cable 43; and each of the electrically conducting pins 53 with each conducting line of cable 43 are considered as "electrically conducting connection pin" as claimed, see Col. 4, lines 3-5).

Referring to claim 19, the Kweon reference discloses in Figures 1-5, a wearable electromagnetic (EM) radiation transmitter/receiver (e.g., a wearable wireless image transmission system having a small-sized camera 4 and radio frequency transmission device 14, see Col. 3, lines 30-37) comprises a front portion and a rear portion, wherein the front portion includes a transmission/reception section and is adapted to be worn outside a wearer's clothing (e.g., the RF transmission device 14, a clip 25, a body has a trough hole 27 for lens and image sensor 4 that mounted on the upper portion 23 are consider as the front portion, see Col.3, lines 45-50; those elements are worn outside a wearer's clothing as shown in Figure 5. It should be noted the reference number of "114" in Figure 5 actually means the RF transmission device 14, see Col. 4, lines 6-12), and wherein the rear portion includes a control section and is adapted to be worn inside at least part of the wearer's clothing (e.g., a partial of camera upper portion 23, lower portion 21 and a control circuit 6 that built in a

camera circuit 50 are considered as the rear portion; and at least part of camera circuit 50 and upper portion 23 included inside of the wearer's pocket of a shirt as shown in Figures 4-5, see Col. 3, lines 31-33, lines 64-67 and Col. 4, lines 8-10), in which the front and rear portions are operable to communicate electrically with one another, in which the front portion is secured to the rear portion (the clip 25 is secured on the camera upper portion 23 as shown in Figure 4, and the RF transmission device 14 are secured with lower end of the camera circuit 50 by cable 43 and jack 45, see Col. 4, lines 1-5).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 4-7, 21, 8, 13-14, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fitch U.S. Patent 5,912,653 in view of Lin U.S. Patent 4,965,705.

Referring to claim 1, the Fitch reference discloses in Figures 2A-B and 6, a wearable electromagnetic (EM) radiation transmitter/receiver (e.g., a garment with any type of electronic devices as LCD, **miniature cameras**, computers, etc... all signals can be set to a **broadcast frequency** allowing other receiving jackets operation on the same frequency to access by transmitter 72, antenna 70, see Col. 4, lines 35-40) comprises a front portion and a rear portion, wherein the front portion includes transmission and reception section and is

adapted to be worn outside a wearer's clothing (e.g., video tuner 36, video camera 40, audio output devices, input devices, etc... are external to the jacket, see Col. 3, lines 40-50), and wherein the rear portion includes a control section and is worn inside at least part of the wearer's clothing (e.g., microcontroller 22 is in the jacket as shown in 2A-2B, see Col. 5, lines 9-18), the front and rear portions being operable to communicate electrically with one another, and are physically connected to one another (by a fastener lock configuration 16), and to secure the front (electronic devices as LCD, miniature cameras, etc...) and the rear portion (microcontroller 22) in position on a wearer's clothing (one aperture 14 in the jacket), it's being configured when in use to be operable through a thickness of the wearer's clothing between the front and the rear portion. However, the Fitch reference does not explicitly show "a means to secure" as using an electrically conducting connection pin disclosed in applicant's specification instead of fastener lock.

The Lin reference teaches in Figure 3, an electronic jewelry (has a heart shape) including an electrically conducting connection pin (33) to secure the front and the rear portion in position on a wearer's clothing, the securing means being configured when in use to be operable through a thickness of the wearer's clothing between the front and the rear portion (See Col. 2, lines 50-64). The Lin reference is evidence that one of ordinary skill in the art at the time to see more advantages the wearable electronic device using an electrically conducting connection pin to secure the front and the rear portions so that wearer can easily attach or detach both front and rear portions of device from cloth. For that reason, it would have been obvious to one of ordinary skill in the art to modify the wearable device of Fitch



(‘653) by providing an electrically conducting connection pin to secure the front and the rear portions as taught by Lin (‘705).

Referring to claim 4, the Fitch and Lin references disclose all subject matter as discussed with respected to claim 1, and the Fitch reference discloses the control section (microcontrollers 22) of the rear portion controls the transmission and reception sections (See Col. 5, lines 9-54).

Referring to claim 5, the Fitch and Lin references disclose all subject matter as discussed with respected to claim 1, and the Fitch reference discloses in which the front portion comprises an image capture means (miniature video camera, See Col. 3, lines 40-42).

Referring to claim 6, the Fitch and Lin references disclose all subject matter as discussed with respected to claim 6, and the Fitch reference discloses in which the rear portion includes control means (microcontrollers 22) for the image capture means (by video switch 30, see Col. 3, lines 34-44).

Referring to claim 7, the Fitch and Lin references disclose all subject matter as discussed with respected to claim 1, and the Fitch reference discloses in which the rear portion also includes storage means (image memory 26, see Col. 3, lines 30-31) for storage of captured images as shown in Figures 2A-B.

Referring to claim 21, the Fitch and Lin references disclose all subject matter as discussed with respected to claim 1, and the Lin reference discloses wherein the securing means comprises a pin (see Col. 2, lines 49-55).

Referring to claim 8, the Fitch and Lin references disclose all subject matter as discussed with respected to claim 21, and the Lin reference discloses in which the pin (33) is electrically conducting (pin 33 connecting power source 4, see Col. 2, lines 54-56).

Referring to claim 13, the Fitch and Lin references disclose all subject matter as discussed with respected to claim 1, and the Lin reference discloses in which the front portion (1) is incorporated into a piece of jewelry (e.g., having a heart shape).

Referring to claim 14, the Fitch and Lin references disclose all subject matter as discussed with respected to claim 1, and the Fitch discloses in which the transmitter/receiver has a plurality of different front portions all being differently shaped to blend with, or be suitable with, a wearer's clothing all being operable to be used with the same rear portion (e.g., the microcontroller 22 in the rear portion can be used control any types of electronically device such as LCD, camera, video tuner , transmitter, computer, etc...suitable with a wearer's clothing, see Col. 5, lines 20-40).

Referring to claim 20, the Fitch and Lin references disclose all subject matter as discussed with respected to claim 1, and the Fitch reference discloses wherein the securing means extends through the wearer's clothing between the front and rear potions as shown in Figures 2A-B.

Referring to claim 22, the Fitch and Lin references disclose all subject matter as discussed with respected to claim 1, and the Fitch reference discloses the front and the rear portions are operable to communicate through inductive coupling as shown in Figures 2A-B and 6.

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8. Claims 2 and 10-12 rejected under 35 U.S.C. 103(a) as being unpatentable over Fitch U.S. Patent 5,912,653 in view of Lin U.S. Patent 4,965,705 and Brett U.S. Patent 3,141,216.

Referring to claim 2, the Fitch and Lin references disclose all subject matter as discussed with respect to claim 1, except the references do not explicitly state wherein the securing means utilizes a magnet.

The Brett reference teaches in Figure 6, providing improved magnetic fastening means for garments and the like (See Col. 1, lines 13-22). The Brett reference is evidence that one of ordinary skill in the art at the time to see more advantages utilizing a magnet for securing a device on the garments so that it can fasten the members securely and with can be easily manipulated into an out of fastening position. For that reason, it would have been obvious to one of ordinary skill in the art to modify the wearable device of Fitch ('653) by providing the securing means utilizes a magnet as taught by Brett ('216).

Referring to claim 10, the Fitch and Lin references disclose all subject matter as discussed with respect to claim 8, and the Lin reference discloses in which the pin (33) projects from the front portion to be received in a corresponding opening in the back portion. The Brett reference shows the pin projects from the rear portion to be received in a corresponding opening in the front portion. This is evidence that one of ordinary skill in the art at the time to see more advantages for having more flexible options to design a pin projects either from the rear portion or front portion to be received in a corresponding in the front portion or rear portion. For that reason, it would have been obvious to one of ordinary skill in the art to modify the wearable device of Fitch ('653) by providing a pin projects either from the rear

portion or front portion to be received in a corresponding in the front portion or rear portion as taught by Lin ('705) and Brett ('216).

Referring to claim 11, the Fitch, Lin and Brett references disclose all subject matter as discussed with respected to claim 21, and the Lin reference discloses in which the electrically conducting connection pin has multiple conduction paths (e.g., two pins 33 and 34 connecting with power source 4, See Col. 2, lines 47-56)

Referring to claim 12, the Fitch, Lin and Brett references disclose all subject matter as discussed with respected to claim 21, and the Lin reference discloses in which includes a plurality of electrically conducting connection pins arranged to connect the front and rear portions as shown in Figure 7.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fitch U.S. Patent 5,912,653 in view of Lin U.S. Patent 4,965,705 and Kweon U.S. Patent 6,667,771.

Referring to claim 3, the Fitch and Lin references disclose all subject matter as discussed with respected to claim 1, and the Fitch reference discloses includes a transmitter (72) for sending on broadcast frequency (radio frequency) to other receiving jackets (see Col. 4, lines 35-40). However, the Fitch reference does not explicitly states the transmitter is external to the jacket as in the front portion.

The Kweon reference teaches in Figures 1-5, a wearable electromagnetic (EM) radiation (e.g., a wearable wireless image transmission system having a small-sized camera 4 and radio frequency transmission device 14, see Col. 3, lines 30-37) transmitter/receiver ("transmitter/receiver" is considered as transmitter or receiver) comprises a front portion and

a rear portion, wherein the front portion includes transmission/reception section and is adapted to be worn outside a wearer's clothing (e.g., the RF transmission device 14, a clip 25, a body has a trough hole 27 for lens and image sensor 4 that mounted on the upper portion 23 are consider as the front portion, see Col.3, lines 45-50; those elements are worn outside a wearer's clothing as shown in Figure 5. It should be noted the reference number of "114" in Figure 5 actually means the RF transmission device 14, see Col. 4, lines 6-12). The Kweon reference is evidence that one of ordinary skill in the art at the time to see more advantages the transmitter and antenna adapted to be worn outside the wearer's clothing so that the strong and clear signals can be transmitted directly to the remote without obstructed by the wearer's clothing. For that reason, it would have been obvious to one of ordinary skill in the art to modify the wearable device of Fitch ('653) by providing the transmitter is external to the jacket as in the front portion as taught by Kweon ('771).

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to

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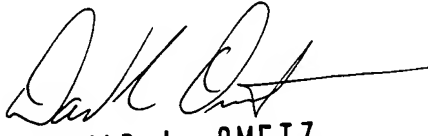
37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

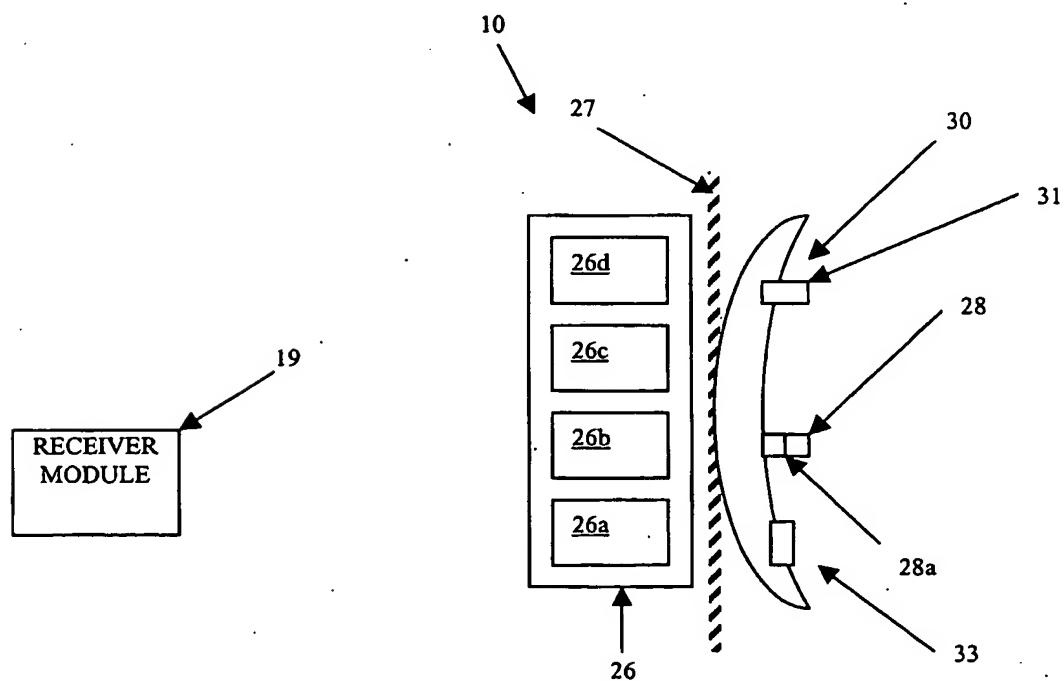
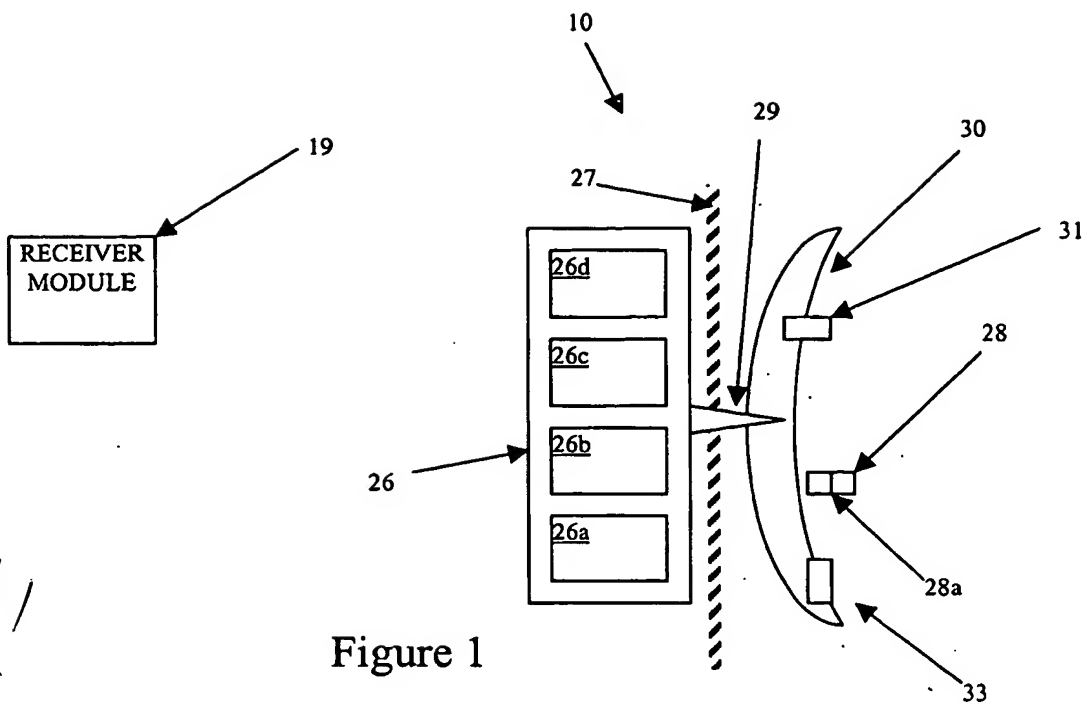
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin Ye whose telephone number is (571) 272-7372. The examiner can normally be reached on Mon-Fri 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lin Ye  
August 4, 2005

  
DAVID L. OMETZ  
SUPERVISORY PATENT  
EXAMINER



approved!

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8/9/05